

Certificate number: CM40239 Rev1

Certification Body:


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THIS IS TO CERTIFY THAT

LuxeWall® Flameguard®

Type and/or use of product:

External fire rated wall.

Description of product:

LuxeWall® Flameguard® is an insulated, fire rated external wall system which can be fixed from the internal side and thus be used on boundary walls with limited access.

COMPLIES WITH THE FOLLOWING BCA PROVISIONS AND STATE OR TERRITORY VARIATION(S)

BCA 2019

	Volume One	Volume Two
Performance Requirement(s):	BP1.1(a),(b) (i),(ii),(iii) FP1.4	Structural Reliability Weatherproofing
Deemed-to-Satisfy Provision(s):	C1.1(b) C1.10(a)(ix) G5.2 J1.5(a)	Structural Reliability (b)(i),(ii),(iii) Weatherproofing Fire-resistance of building elements – Can be used where an FRL 60/60/60 or 90/90/90 is required. Refer A3. Fire hazard properties – Spread-of-Flame Index 0, Smoke-Developed Index 3, Group number 1 Construction in bushfire prone areas - Protection – External walls – BAL FZ Energy Efficiency - Walls – Contributes to the overall performance of the wall. Refer A3
State or territory variation(s):	G5.2 (NSW)	3.7.2.4 3.10.5.0 3.12.1.4(a) 3.12.1.6(a) 3.10.5.0 (NSW, Qld), Part 3.12 (NSW, NT, Qld, Tas, ACT)

SUBJECT TO THE FOLLOWING LIMITATIONS AND CONDITIONS AND THE PRODUCT TECHNICAL DATA IN APPENDIX A AND EVALUATION STATEMENTS IN APPENDIX B



Richard Donarski - CMI



Don Grehan – Unrestricted Building Certifier

Date of issue: 15/05/2020

Date of expiry: 25/09/2021



Limitations and conditions:

1. The LuxeWall® Flameguard® panels are limited to the use in Type C Construction in Class 2 to 9 buildings when being used as external walls.
2. To achieve FRL, the construction must be as described in A3 and the loadbearing capacity of the frame is limited to a maximum uniformly distributed load of 11kN/m.
3. In order to maintain compliance with BAL, it is the responsibility of the Building Designer to ensure compliance is achieved in accordance with AS 3959-2018.
4. In the absence of site specific engineering advice, the LuxeWall® Flameguard® panels can be used in external situations in non-cyclonic areas only.
5. The LuxeWall® Flameguard® panels can be used as internal walls in class 2 to 9 buildings and as internal and external walls in class 1 & 10 buildings.
6. The LuxeWall® Flameguard® panels are limited to Australian wind regions A & B to AS/NZS 1170.2:2011(R2016) for Vol 1 and 'N' wind classes to AS 4055:2012 for Vol 2.
7. The metal wall panels will be limited by wind load shown in the manufacturer's specifications on the span certified for the product type, thickness, core density and fixing configuration as per the product's certified span tables. Refer A3 below.
8. Construction methods for external walls required to be fire resisting in relation to class 1 and 10 buildings and structures must comply with part 3.7.2.4 of the NCC Volume 2.
9. A pliable building membrane complying with AS/NZS 4200.1-2017 must be installed in accordance with AS/NZS4200.2-2017 to separate the wall cladding panels from any water sensitive materials.
10. No assessment has been undertaken on the product for Part F6 of Vol 1 or Part 3.8.7 of Vol 2 of the 2019 BCA for Condensation management.
11. The minimum clearance from the bottom of the wall cladding panels to the adjoining finished ground level must not be less than 100mm.
12. Installation requirements are outside the scope of this certificate and subject to project specific engineering advice.
13. It is the responsibility of the architectural designer and engineering parties to ensure that the details in this Design and Installation Guide are appropriate for the intended application.
14. The structural support members are designed and engineered separately as per project requirements by building designers and engineers.
15. The weatherproofing systems for all panels is dependent on window, door and other penetration frames being designed, constructed and installed in accordance with manufacturer's recommendations to enable adequate flashing and sealing to the building.
16. The use of the certified product/system is subject to these Limitations and Conditions and must be read in conjunction with the Scope of Certification below.

Building classification/s:

1,2,3,4,5,6,7,8,9 & 10

Scope of certification: The CodeMark Scheme is a building product certification scheme. The rules of the Scheme are available at the ABCB website www.abcb.gov.au. This Certificate of Conformity is to confirm that the relevant requirements of the Building Code of Australia (BCA) as claimed against have been met. The responsibility for the product performance and its fitness for the intended use remain with the Certificate Holder. The certification is not transferrable to a manufacturer not listed on Appendix A of this certificate.

Only criteria as identified within this Certificate of Conformity can be used for CodeMark certification claims. Where other claims are made in a client's Installation Manual, Website or other documents that are outside the criteria on this Certificate of Conformity, such criteria cannot be used or claimed to meet the requirements of this CodeMark certification.

The NCC defines a Performance Solution as one that complies with the Performance Requirements by means other than a Deemed-to-Satisfy Solution. A Building Solution that relies on a CodeMark Certificate of Conformity that certifies a product against the Performance Requirements cannot be considered as Deemed-to-Satisfy Solution.

This Certificate of Conformity may only relate to a part of a Performance Solution. In these circumstances other evidence of suitability is needed to demonstrate that the relevant Performance Requirements have been met. The relevant provisions of the Governing Requirements in Part A of the NCC will also need to be satisfied.

This Certificate of Conformity is issued based on the evidence of compliance as detailed herein. Any deviation from the specifications contained in this Certificate of Conformity is outside of this document's scope and the installation of the certified product will not be covered by this Certificate of Conformity. This may result in the product being classified as a non-conforming building product.

Disclaimer: The Scheme Owner, Scheme Administrator and Scheme Accreditation Body do not make any representations, warranties or guarantees, and accept no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained within this certificate; and the Scheme Owner, Scheme Administrator and Scheme Accreditation Body disclaim to the extent permitted by law, all liability (including negligence) for claims of losses, expenses, damages and costs arising as a result of the use of the product(s) referred to in this certificate.

When using the CodeMark logo in relation to or on the product/system, the Certificate Holder makes a declaration of compliance with the Scope of Certification and confirms that the product is identical to the product certified herein. In issuing this Certificate of Conformity, CertMark International has relied on the experience and expertise of external bodies (laboratories and technical experts).

Nothing in this document should be construed as a warranty or guarantee by CMI, and the only applicable warranties will be those provided by the Certificate Holder.

APPENDIX A – PRODUCT TECHNICAL DATA

A1 Type and intended use of product

As per page 1.

A2 Description of product

Core	Mineral Wool (MV)
Width (cover mm)	900 to 1200
Thickness (mm)	50, 75
Length	Up to 6.5m
External Material	0.6mm G300 COLORBOND® Steel
Internal Material	0.6mm G300 COLORBOND® Steel with HygienePlus®

Dimensions



Source: Certificate Holder

A3 Product specification

Structure

In order to maintain compliance with structure, the following Span Tables must be referred to which have been certified by a licensed Professional Engineer.

Document Name	Version
LuxeWall® FG SPAN TABLES FOR WIND REGION A & B – NON-CYCLONIC (EXTERNAL WALL APPLICATIONS ONLY) Mineral Wool Core 0.6mm steel skins	1
LuxeWall® FG Wall Span Table for Housing Application – 50mm Panel Mineral Wool Core 0.6mm Steel Skins – FRL Applications	1
LuxeWall® FG Wall Span Table for Housing Application – 75mm Panel Mineral Wool Core 0.6mm Steel Skins – FRL Applications	1
LuxeWall® FG Wall Span Table for Housing Application – 50mm Panel Mineral Wool Core 0.6mm Steel Skins	1
LuxeWall® FG Wall Span Table for Housing Application – 75mm Panel Mineral Wool Core 0.6mm Steel Skins	1

Fire Resistance Level (FRL)

FRL	LuxeWall® Flameguard® Wall System Options
90/90/90	<p>1) As tested LuxeWall® Flameguard® wall including -</p> <ul style="list-style-type: none"> • From 50mm to 150mm thickness LuxeWall® Flameguard® panels • With or without insulation in stud cavities; • Installation of weather wrap of Ametalin Silverwrap or other brands; the weather wrap may be optionally removed; • 90mm or deeper timber or equivalent steel stud frames; • LuxeWall® Flameguard® panel widths ranging from 900mm to 1200mm; • With or without external acrylic coating on LuxeWall® Flameguard® panels; • Inclusion of weather resistant fire rated sealants in fire side of inter-locking joints and perimeter edges of the LuxeWall® Flameguard® panels and metal capping over top of all panels; • Optional installation of electrical conduits fixed onto the steel stud frames; • Installation of the LuxeWall® Flameguard® wall system up to 12 metres in height; • Penetrations in the wall system on the unexposed side for: <ul style="list-style-type: none"> a) installation of Clipsal 157/1F fire and acoustic rated wall boxes incorporating face panels with <ul style="list-style-type: none"> - single switch control; - single GPO;

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- double switch control;
- double GPO;
- single data point.

b) installation of a bath tap set (note that all penetrations are to be located at least 100mm away from the main vertical studs)

60/60/60 2) As per option (1), but without fire rated joint sealants in the perimeter and inter-locking joints of LuxeWall® Flameguard® panels. Capping at top of panel is not required except for top of parapet wall exposed to weather.

60/60/60 3) As per option (2) except that the internal cladding be replaced with 13mm fire rated plasterboard.

The proposed LuxeWall® Flameguard® loadbearing wall system is as tested in EWFA 41268000 with consideration of the following variations:

1. Application of weather resistant fire rated joint sealant at the exposed side of the LuxeWall® Flameguard® panel inter-locking joints and along the perimeter edges for FRL 90/90/90 wall systems;
2. Optional application of weather resistant fire rated joint sealant at the exposed side of the LuxeWall® Flameguard® panel inter-locking joints and along the perimeter edges for FRL 60/60/60 wall systems;
3. Optional replacement of timber stud frames with equivalent depth or deeper steel stud frames;
4. Optional external acrylic textured coating of the LuxeWall® Flameguard® panels;
5. Optional inclusion of glass wool insulation in the stud frame cavity;
6. Optional installation of weather wrap of Ametalin Silverwrap or other brands;
7. Optional installation of 13mm in lieu as tested 16mm thickness fire rated plasterboard with revised overall fire resistance performance for FRL 60/60/60 wall systems;
8. Optional installation of LuxeWall® Flameguard® panels 50mm or thicker;
9. Optional installation of LuxeWall® Flameguard® panels with widths ranging from 900mm to 1200mm;
10. Installation of Bondor LuxeWall® Flameguard® wall systems up to 12 metres in height;
11. Optional installation of electrical conduits fixed onto the steel stud frames.

Note: The results of this assessment are applicable to the LuxeWall® Flameguard® loadbearing walls exposed to heat from the external side only.

Source: Exova Warringtonfire Report No. 55457600.2, AS1530.4-2014, Dated 12/07/2018.

Fire Hazard Properties

AS/NZS 1530.3-1999 Indices

Ignitability Index	0	Range 0-20
Spread of Flame Index	0	Range 0-10
Heat Evolved Index	0	Range 0-10
Smoke Index	3	Range 0-10

Source: AWTA Test Report – AS 1530.3-1999; Dated 12/03/2009.

Thermal & Energy Efficiency

LuxeWall® Systems with Horizontal Tophats, Vapour Permeable Sarking & Plasterboard (steel framing)	Insulation path Total R, m ² K/W		Overall Total R, m ² K/W	
	Summer	Winter	Summer	Winter
	50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and steel studs at 600mm centres (10mm plasterboard)	R1.8	R1.9	R1.8
75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and steel studs at 600mm centres (10mm plasterboard)	R2.4	R2.5	R2.4	R2.5
50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R3.0	R3.3	R2.8	R3.0
75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R3.7	R3.9	R3.4	R3.7
50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R3.5	R3.8	R3.2	R3.4
75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and steel studs at 600mm centres (10mm plasterboard)	R4.1	R4.4	R3.8	R4.1

LuxeWall® Systems with Horizontal Tophats, Vapour Permeable Sarking & Plasterboard (pine framing)	Insulation path Total R, m ² K/W		Overall Total R, m ² K/W	
	Summer	Winter	Summer	Winter
	50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and pine studs at 600mm centres (10mm plasterboard)	R1.8	R1.9	R1.8
75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm non-reflective air space and pine studs at 600mm centres (10mm plasterboard)	R2.4	R2.5	R2.4	R2.6
50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R3.0	R3.3	R2.9	R3.1
75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 70mm R1.50 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R3.7	R3.9	R3.5	R3.8
50mm R1.25 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R3.5	R3.8	R3.3	R3.6
75mm R1.88 LuxeWall® Flameguard® system with horizontal tophats, vapour permeable Sarking, 90mm R2.00 glasswool insulation and pine studs at 600mm centres (10mm plasterboard)	R4.1	R4.4	R4.0	R4.2

- Notes:**
- The above shows determinations based upon AS/NZS 4859 Parts 1&2:2018, Thermal insulation materials for buildings. "Overall" results show reportable Total R after thermal bridging calculations.
 - Total Transmittance (U) can be calculated by $U=1/R$

A4 Manufacturer and manufacturing plant(s)

Metecno Pty Ltd
103 Ingram Road,
Acacia Ridge QLD 4110.

A5 Installation requirements

Installation requirements are outside the scope of this certificate and subject to project specific engineering advice. The minimum fixing requirements are outlined in the Span Tables referenced in A3 of this Certificate of Conformity.

A6 Other relevant technical data

Acoustic Properties

Depending on construction, LuxeWall® Flameguard® may achieve an R_w 40 – 45. Contact Certificate Holder for construction details.

APPENDIX B – EVALUATION STATEMENTS

B1 Evaluation methods

1. Fire Safety Provisions – A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.
2. Structural Provisions – A5.2(1)(e). Reports from a professional engineer.
3. Thermal Provisions – A5.2(1)(e). Reports from a professional engineer.
4. Weatherproofing Provisions – A5.2(1)(d)&(e). Reports from Accredited Testing Laboratories and a professional engineer.

B2 Reports

1. Acronem Consulting Australia Pty Ltd, LuxeWall NCC 2019 FV1 & V2.2.1 Weatherproofing Testing results; Dated 14/11/2019.
2. AWTA Textile Testing; NATA Accreditation No. 1356; Report No. 7-565217-CQ; Fire test in accordance with AS/NZS 1530.3-1999, Fire indices; Dated 13/03/2009.
3. Bligh Tanner; Report Reference No. 2017.0493; Weatherproofing Assessment of Equitilt panels including LuxeWall FlameGuard; Dated 02/08/2018.
4. Bligh Tanner; Report Reference No. 2017.0493; Certification of LuxeWall Span Tables; Dated 11/09/2018.
5. Exova Warringtonfire; NATA Accreditation No. 3277; Report No. 41268000.4; Fire resistance test in accordance with AS 1530.4-2014, 60/60/60; Dated 21/02/2018.
6. Ian Bennie And Associates; Accreditation No. 2371; Report No.2019-020-S6; NCC-2019 Verification Methods FV1 & V2.1.1 in accordance with AS/NZS 4284:2008; Dated 10/10/2019.
7. James M Fricker Pty Ltd; Report i265lx; Overall “Total R” (Thermally Bridged) Thermal Calculations To AS/NZS 4859 Parts 1 & 2:2018 Pine timber studs; Dated 24/04/2020.
8. James M Fricker Pty Ltd; Report i265lx; Overall “Total R” (Thermally Bridged) Thermal Calculations To AS/NZS 4859 Parts 1 & 2:2018 Steel studs; Dated 24/04/2020.
9. Warringtonfire Australia Pty Ltd; NATA Accreditation No. 3277; Report No. 55457600 R3.1; Fire resistance test in accordance with AS 1530.4-2014; Dated 03/12/2019.

The Certificate Holder has chosen not to make the above evidence of compliance publicly available, due to the documents being considered commercial in confidence.